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Pathology of liver tumors

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Liver tumors can be clasifficated according to the origin cell in epithelial and no epithelial. The epithelial tumors source of the duct or the hepatic cell. It is malignant an benign. The principal epithelial tumor malignant are hepatocelullar carcinoma, hepatoblastoma and cholangiocarcinoma. The hepatoblastoma is the most common malignant epithelial tumor of the liver, in the first two years of life. Malignant Primary tumors of the liver are relatively rare especially in patients without underlying liver disease.

The most frequent benign epithelial tumors are focal nodular hyperplasia, liver cell adenoma and bile duct adenoma. The adenoma is much most important benign tumor of the liver; and its association with synthetic oral contraceptive and anabolic steroids is well established. Focal nodular hyperplasia occurs in all ages and sexes. It usually solitary, around 5 cms in size and forms a well-circumscribed fibrous globular mass. A central stellate scar is frequently seen in the imaginologic studies.

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Hepatocellular carcinoma (HCC) is the most common primary hepatic malignancy of adults. The association of HCC with chronic liver disease have been the subject of study in many fields. The majority of hepatocelullar carcinomas (75%-90%) arise in a background of cirrhosis. In an AFIP study of North American patient the prevalence of cirrhosis was 57%. A gross classification has been proposed by Nahshima and Kojiro: a. infiltrative type b. expansive type c. mixto, infiltrative and expansive. D. diffuse. The histology classification is based on the cell pattern of organization. A trabecular, seudoglandular, solid are most frequent. In the liver transplantation indicated by HCC pathological prognostic factors include: vascular invasion, tumor size, microsatellitosis and cell proliferation index among others

Cholangiocarcinoma (CC) is defined, as an adenocarcinoma arising from bile duct epithelium. It is intrahepatic or peripheral according to the clinical presentation. CC may be massive, nodular or diffuse, rarely cystic. It grows more often in the right lobe, but this tumor may arise in any functional segment, and can spread widely within the liver. CC can display a glandular pattern, similar to carcinoma of extrahepatic origin. Most of the tumors are well differentiated, and are compose of columnar or cubical epithelial cells, immerse in a prominent desmoplasic estroma.

The cholangiocarcinoma (CC) is defined as an adenocarcinoma arising from bile duct epithelium. It is intrahepatic or peripherical according to the clinical presentation. Cholangicarcinoma may be massive, nodular or diffuse, rarely cystic. It grows more often in the right lobe, but the tumors may arise in any lobe y can spread widely within the liver. Cholangiocarcinoma display glandular pattern, similar to carcinoma of extrahepatic origin. Most of the tumors are well differentiated and composed of columnar or cubical epithelial cells. It immerse in desmoplastic stroma. The mucin production is often demonstrable with special colorations.

Combined hepatocelullar carcinoma and cholangiocarcinoma has been found in a background of cirrhosis. It display unequivocal elements of both hepatocelullar and cholangiocarcinoma.

In the precancerous lesions, the cirrhotic state is consider to be the one with more weight. Though, the risk of malignancy development varies with the cirrhotic etiology. Is is high in chronic HBV and HCV infection, and low in alcoholic disease or NASH. Though the risk of the malignancy varies with the etiology. It is high in chronic HBV and HCV infection and low in alcoholic disease or Nash. The dysplastic nodule, adenomatous hyperplasia and macroregenerative nodule has been associated with hepatocelullar carcinoma.

The immunochemistry can be of utility for the differential diagnostic with metastatic carcinomas. The inmunohistochemistry can be of utility in the differential diagnosis with metastasic carcinomas. Liver proteins like albumina, fibrinogen, alfa 1 antitripsina, alfafetoproteina, and CK 8,18,20 can be use for the demonstration of primary origin. The task has been greatly facilitated by the introduction of Hep-par1 antibody. this bind to an antigen in the liver cells and tumors arising of them.

Fibrolamellar carcinoma (FLC) is a variant of Hepatocelullar carcinoma characterized by fibrous lamellae and polygonal tumor cell that have eosinophilic, coarsely granular cytoplasm. The tumor has distinctive clinical aspect. It appears in young patient in the absence of preexisting liver disease, has a better resectability rate than the usual type of HCC and a better survival with surgical resection or transplantation.

No epithelial tumors arise mainly in the mesenchymal tissue. The mesenchymal hamartoma, infantile hemagioendothelioma and cavernous hemangioma are the more frequent lesions between the benign ones.

Mesenchymal hamartoma is a benign lesion in children. It Appears like great serous fluid cyst, surround by loose stroma containing small bile duct. Accounts for 7.9 % of all liver tumors and seudotumor.The hemagioendothelioma infantile is a benign vascular tumor wich occurs almost exclusively in the first years of the life. Cavernous hemangioma can be single or multiple, composed by communicating vascular space of varied size, lined by a single layer of flat endothelial cells.It is the most common benign hepatic tumor. The incidence is around 5% and the majority patient are asymptomatic.

Primary malignant mesenchymal tumors are much rarer than epithelial neoplasm; they account approximately 2% of the liver malignant tumors. Angiosarcoma, epithelioid hemagioendothelioma and embryonal sarcoma are the most important en this category.